

IN THE CLAIMS

Please amend the claims under the provisions of 37 CFR §1.121(a)(2)(ii), as follows:

- 1-6. **(Canceled)**
7. **(Currently Amended)** The composition of any one of claims 22-25, 28, and 29, wherein the multivalent polypeptide has an EC<sub>50</sub> for killing transformed cells at least 5-fold lower than the EC<sub>50</sub> for killing normal cells.
8. **(Currently Amended)** The composition of any one of claims 22-25, 28, and 29, wherein the multivalent polypeptide has an EC<sub>50</sub> for killing activated cells at least 5-fold lower than the EC<sub>50</sub> for killing unactivated cells.
9. **(Currently Amended)** The composition of any of claims 22-25, 28, and 29, wherein the multivalent polypeptide has an EC<sub>50</sub> of 50 nM or less for killing transformed cells.
10. **(Currently Amended)** The composition of any of claims 22-25, 28, and 29, wherein the multivalent polypeptide has an EC<sub>50</sub> for killing lymphoid tumor cells of 10 nM or less.
11. **(Currently Amended)** The composition of any of claims 22-25, 28, and 29, wherein the multivalent polypeptide kills activated lymphoid cells.
12. **(Original)** The composition of claim 11, wherein said activated lymphoid cells are lymphoid tumor cells representing a disease selected from the group consisting of B cell non-Hodgkin lymphoma, B cell lymphoma, B cell acute lymphoid leukemia, Burkitt lymphoma, Hodgkin lymphoma, hairy cell leukemia, acute myeloid leukemia, T cell lymphoma, T cell non-Hodgkin lymphoma, chronic myeloid leukemia, chronic lymphoid leukemia, and multiple myeloma.
13. **(Previously Presented)** The composition of claim 11, wherein said activated lymphoid cells are from a cell line selected from the group consisting of PRIESS (ECACC Accession No: 86052111), GRANTA-519 (DSMZ Accession No: ACC 342), and KARPAS-422 (DSMZ Accession No: ACC 32) cell lines.

14. **(Currently Amended)** The composition of any of claims 22-25, 28, and 29, wherein the multivalent polypeptide has an EC<sub>50</sub> of 100 nM or less for killing KARPAS-422 (DSMZ Accession No: ACC 32) cells.
15. **(Currently Amended)** The composition of any of claims 22-25, 28, and 29, wherein the multivalent polypeptide has an EC<sub>50</sub> of 50 nM or less for killing KARPAS-422 (ACC 32 from DSMZ) cells.
16. **(Currently Amended)** The composition of any of claims 22-25, 28, and 29, wherein the multivalent polypeptide has an EC<sub>50</sub> of 10 nM or less for killing PRIESS (ECACC Accession No: 86052111) cells.
17. **(Currently Amended)** The composition of any of claims 22-25, 28, and 29, wherein said cells are non-lymphoid cells that express HLA-DR molecules.
18. **(Currently Amended)** The composition of any of claims 22-25, 28, and 29, wherein said antigen-binding domain binds to the  $\beta$ -chain of HLA-DR.
19. **(Original)** The composition of claim 18, wherein said antigen-binding domain binds to the first domain of the  $\beta$ -chain of HLA-DR.
20. **(Currently Amended)** The composition of any of claims 22-25, 28, and 29, wherein said antigen-binding domain binds to one or more HLA-DR types selected from the group consisting of DR1-0101, DR2-15021, DR3-0301, DR4Dw4-0401, DR4Dw10-0402, DR4Dw14-0404, DR6-1302, DR6-1401, DR8-8031, DR9-9012, DRw53-B4\*0101 and DRw52-B3\*0101.
21. **(Original)** The composition of claim 20, wherein said antigen-binding domain binds to at least 5 different of said HLA-DR types.
22. **(Previously Presented; Allowed)** A composition including a polypeptide comprising an antibody-based antigen-binding domain of human composition with binding specificity for a HLA-DR antigen expressed on the surface of a human cell, wherein treating cells expressing said antigen with a multivalent polypeptide having two or more of said antigen-binding domains causes or leads to killing of said cells, wherein said antigen-binding domain

includes a combination of a VH domain and a VL domain, wherein said combination is found in one of the clones selected from the group consisting of MS-GPC-1 (SEQ ID NOs. 37 and 38, respectively), MS-GPC-6 (SEQ ID NOs. 39 and 40, respectively), MS-GPC-8 (SEQ ID NOs. 41 and 42, respectively), MS-GPC-10 (SEQ ID NOs. 43 and 44, respectively), MS-GPC-8-1 (SEQ ID NOs. 41 and 28, respectively), MS-GPC-8-6 (SEQ ID NOs. 41 and 46, respectively), MS-GPC-8-9 (SEQ ID NOs. 41 and 31, respectively), MS-GPC-8-10 (SEQ ID NOs. 41 and 48, respectively), MS-GPC-8-17 (SEQ ID NOs. 41 and 50, respectively), MS-GPC-8-18 (SEQ ID NOs. 41 and 32, respectively), MS-GPC-8-27 (SEQ ID NOs. 41 and 52, respectively), MS-GPC-8-6-2 (SEQ ID NOs. 41 and 45, respectively), MS-GPC-8-6-19 (SEQ ID NOs. 41 and 47, respectively), MS-GPC-8-6-27 (SEQ ID NOs. 41 and 49, respectively), MS-GPC-8-6-45 (SEQ ID NOs. 41 and 51, respectively), MS-GPC-8-6-13 (SEQ ID NOs. 41 and 54, respectively), MS-GPC-8-6-47 (SEQ ID NOs. 41 and 53, respectively), MS-GPC-8-10-57 (SEQ ID NOs. 41 and 56, respectively), MS-GPC-8-27-7 (SEQ ID NOs. 41 and 55, respectively), MS-GPC-8-27-10 (SEQ ID NOs. 41 and 57, respectively) and MS-GPC-8-27-41 (SEQ ID NOs. 41 and 58, respectively).

23. **(Previously Presented; Allowed)** A composition including a polypeptide comprising an antibody-based antigen-binding domain of human composition with binding specificity for a HLA-DR antigen expressed on the surface of a human cell, wherein treating cells expressing said antigen with a multivalent polypeptide having two or more of said antigen-binding domains causes or leads to killing of said cells, wherein said antigen-binding domain includes a combination of HuCAL VH2 and HuCAL VL1, wherein the VH CDR3, VL CDR1 and VL CDR3 is found in one of the clones selected from the group consisting of MS-GPC-1 (SEQ ID NOs. 37 and 38, respectively), MS-GPC-6 (SEQ ID NOs. 39 and 40, respectively), MS-GPC-8 (SEQ ID NOs. 41 and 42, respectively), MS-GPC-10 (SEQ ID NOs. 43 and 44, respectively), MS-GPC-8-1 (SEQ ID NOs. 41 and 28, respectively), MS-GPC-8-6 (SEQ ID NOs. 41 and 46, respectively), MS-GPC-8-9 (SEQ ID NOs. 41 and 31, respectively), MS-GPC-8-10 (SEQ ID NOs. 41 and 48, respectively), MS-GPC-8-17 (SEQ ID NOs. 41 and 50, respectively), MS-GPC-8-18 (SEQ ID NOs. 41 and 32, respectively), MS-GPC-8-27 (SEQ ID NOs. 41 and 52, respectively), MS-GPC-8-6-2 (SEQ ID NOs. 41 and 45, respectively), MS-GPC-8-6-19 (SEQ ID NOs. 41 and 47, respectively), MS-GPC-8-

6-27 (SEQ ID NOs. 41 and 49, respectively), MS-GPC-8-6-45 (SEQ ID NOs. 41 and 51, respectively), MS-GPC-8-6-13 (SEQ ID NOs. 41 and 54, respectively), MS-GPC-8-6-47 (SEQ ID NOs. 41 and 53, respectively), MS-GPC-8-10-57 (SEQ ID NOs. 41 and 56, respectively), MS-GPC-8-27-7 (SEQ ID NOs. 41 and 55, respectively), MS-GPC-8-27-10 (SEQ ID NOs. 41 and 57, respectively) and MS-GPC-8-27-41 (SEQ ID NOs. 41 and 58, respectively).

24. **(Previously Presented; Allowed)** A composition including a polypeptide comprising an antibody-based antigen-binding domain of human composition with binding specificity for a HLA-DR antigen expressed on the surface of a human cell, wherein treating cells expressing said antigen with a multivalent polypeptide having two or more of said antigen-binding domains causes or leads to killing of said cells, wherein said antigen-binding domain includes a combination of HuCAL VH2 and HuCAL V $\lambda$ 1, wherein the VH CDR3 sequence is taken from the consensus CDR3 sequence

XXXXRGXFDX (SEQ ID NO: 1)

wherein each X independently represents any amino acid residue; and/or

wherein the VL CDR3 sequence is taken from the consensus CDR3 sequence

QSYDXXXX (SEQ ID NO: 2)

wherein each X independently represents any amino acid residue.

25. **(Previously Presented; Allowed)** The composition of claim 24, wherein the VH CDR3 sequence of said antigen-binding domain is SPRYRGAFDY (SEQ ID NO: 3) and/or the VL CDR3 sequence of said antigen-binding domain is QSYDLIRH (SEQ ID NO: 4) or QSYDMNVH (SEQ ID NO: 5).

26. **(Canceled)**

27. **(Canceled)**

28. **(Currently Amended)** A composition including a polypeptide comprising an antibody-based antigen-binding domain of human composition with binding specificity for a HLA-DR antigen expressed on the surface of a human cell, wherein treating cells expressing said

antigen with a multivalent polypeptide having two or more of said antigen-binding domains causes or leads to killing of said cells, wherein said antigen-binding domain includes a [[VL]] combination of HuCAL VH2 and HuCAL Vλ1, wherein the Vλ1 CDR1 sequence is represented in the general formula  
SGSXXNIGXNYVX (SEQ ID NO: 6)

wherein each X independently represents any amino acid residue.

29. **(Previously Presented; Allowed)** The composition of claim 28, wherein the CDR1 sequence is SGSESNIGNNYVQ (SEQ ID NO: 7).
- 30-32. **(Canceled)**.
33. **(Currently Amended)** The composition of any one of claims 22-25, 28, and 29, wherein said antibody-based antigen-binding domain is part of a multivalent polypeptide including at least a F(ab')<sub>2</sub> antibody fragment or a mini-antibody fragment.
34. **(Currently Amended)** The composition of any one of claims 22-25, 28, and 29, wherein said antibody-based antigen-binding domain is part of a multivalent polypeptide comprising at least two monovalent antibody fragments selected from Fv, scFv, dsFv and Fab fragments, and further comprises a cross-linking moiety or moieties.
35. **(Currently Amended)** The composition of any one of claims 22-25, 28, and 29, wherein said antibody-based antigen-binding domain is part of a multivalent polypeptide comprising at least one full antibody selected from the antibodies of classes IgG<sub>1</sub>, 2a, 2b, 3, 4, IgA, and IgM.
36. **(Currently Amended)** The composition of any one of claims 22-25, 28, and 29, wherein said antibody-based antigen-binding domain is part of a multivalent polypeptide that is formed prior to binding to a cell.
37. **(Currently Amended)** The composition of any one of claims 22-25, 28, and 29, wherein said antibody-based antigen-binding domain is part of a multivalent polypeptide that is formed after binding to a cell.
- 38-42. **(Canceled)**

43. **(Currently Amended)** The composition of any one of claims 22-25, 28, and 29, formulated in a pharmaceutically acceptable carrier and/or diluent.
- 44-54. **(Canceled)**
55. **(Currently Amended)** A diagnostic composition including the composition of any of claims 22-25, 28, and 29.
56. **(Original)** The diagnostic composition of claim 55, further comprising a cross-linking moiety or moieties.
- 57-58. **(Canceled)**
59. **(Currently Amended)** A kit to identify patients that can be treated with a composition of any of claims 22-25, 28, and 29, formulated in a pharmaceutically acceptable carrier and/or diluent comprising:
- a. a composition of any of claims 22-25, 28, and 29; and
  - b. means to measure the degree of killing or immunosuppression of said cells.
60. **(Currently Amended)** A kit comprising:
- a. a composition according to any one of claims 22-25, 28, and 29, and
  - b. a cross-linking moiety.
61. **(Currently Amended)** A kit comprising:
- a. a composition according to any one of claims 22-25, 28, and 29, and
  - b. a detectable moiety or moieties, and
  - c. reagents and/or solutions to effect and/or detect binding of (a) to an antigen.
62. **(Currently Amended)** The composition of any one of claims 22-25, 28, and 29 operably linked to a cytotoxic agent.
63. **(Currently Amended)** The composition of any one of claims 22-25, 28, and 29 operably linked to an immunogenic agent.

64-66. **(Canceled)**

67. **(Previously Presented; Allowed)** A composition including a polypeptide comprising at least one antibody-based antigen-binding domain with a binding specificity for human HLA-DR antigen, wherein treating cells expressing HLA-DR with said polypeptide causes or leads to suppression of an immune response, and wherein said antigen-binding domain includes a combination of a VH domain and a VL domain, wherein said combination is found in one of the clones taken from the group consisting of MS-GPC-1 (SEQ ID NOs. 37 and 38, respectively), MS-GPC-6 (SEQ ID NOs. 39 and 40, respectively), MS-GPC-8 (SEQ ID NOs. 41 and 42, respectively), MS-GPC-10 (SEQ ID NOs. 43 and 44, respectively), MS-GPC-8-1 (SEQ ID NOs. 41 and 28, respectively), MS-GPC-8-6 (SEQ ID NOs. 41 and 46, respectively), MS-GPC-8-9 (SEQ ID NOs. 41 and 31, respectively), MS-GPC-8-10 (SEQ ID NOs. 41 and 48, respectively), MS-GPC-8-17 (SEQ ID NOs. 41 and 50, respectively), MS-GPC-8-18 (SEQ ID NOs. 41 and 32, respectively), MS-GPC-8-27 (SEQ ID NOs. 41 and 52, respectively), MS-GPC-8-6-2 (SEQ ID NOs. 41 and 45, respectively), MS-GPC-8-6-19 (SEQ ID NOs. 41 and 47, respectively), MS-GPC-8-6-27 (SEQ ID NOs. 41 and 49, respectively), MS-GPC-8-6-45 (SEQ ID NOs. 41 and 51, respectively), MS-GPC-8-6-13 (SEQ ID NOs. 41 and 54, respectively), MS-GPC-8-6-47 (SEQ ID NOs. 41 and 53, respectively), MS-GPC-8-10-57 (SEQ ID NOs. 41 and 56, respectively), MS-GPC-8-27-7 (SEQ ID NOs. 41 and 55, respectively), MS-GPC-8-27-10 (SEQ ID NOs. 41 and 57, respectively) and MS-GPC-8-27-41 (SEQ ID NOs. 41 and 58, respectively).

68-70. **(Canceled)**

71. **(Currently Amended)** The composition of any of claims 67 or 81-83, 86 and 87, wherein said antigen-binding domain binds to the  $\beta$ -chain of HLA-DR.
72. **(Original)** The composition of claim 71, wherein said antigen-binding domain binds to an epitope of the first domain of the  $\beta$ -chain of HLA-DR.
73. **(Currently Amended)** The composition of any of claims 67 or 81-83, 86 and 87, wherein said cells are lymphoids cells.

74. **(Currently Amended)** The composition of any of claims 67 or 81-83, 86 and 87, wherein said cells are non-lymphoid cells and express HLA-DR antigens.
75. **(Currently Amended)** The composition of any of claims 67 or 81-83, 86 and 87, having an IC<sub>50</sub> for suppressing an immune response of 1  $\mu$  M or less.
76. **(Currently Amended)** The composition of any of claims 67 or 81-83, 86 and 87, having an IC<sub>50</sub> for inhibition of IL-2 secretion of 1  $\mu$  M or less.
77. **(Currently Amended)** The composition of any of claims 67 or 81-83, 86 and 87, having an IC<sub>50</sub> for inhibiting T cell proliferation of 1  $\mu$  M or less.
78. **(Currently Amended)** The composition of any of claims 67 or 81-83, 86 and 87, wherein said antigen-binding domain binds to one or more HLA-DR types selected from the group consisting of DR1-0101, DR2-15021, DR3-0301, DR4Dw4-0401, DR4Dw10-0402, DR4Dw14-0404, DR6-1302, DR6-1401, DR8-8031, DR9-9012, DRw53-B4\*0101 and DRw52-B3\*0101.
79. **(Original)** The composition of claim 78, wherein said antigen-binding domain binds to at least 5 different of said HLA-DR types.
80. **(Canceled)**
81. **(Previously Presented; Allowed)** A composition including a polypeptide comprising at least one antibody-based antigen-binding domain with a binding specificity for a human HLA-DR antigen with a K<sub>d</sub> of 1  $\mu$ M or less, wherein treating cells expressing said antigen with said polypeptide causes or leads to suppression of an immune response, wherein said antigen-binding domain includes of a combination of HuCAL VH2 and HuCAL V $\lambda$ 1, wherein the VH CDR3, VL CDR1 and VL CDR3 is found in one of the clones selected from the group consisting of MS-GPC-1 (SEQ ID NOs. 37 and 38, respectively), MS-GPC-6 (SEQ ID NOs. 39 and 40, respectively), MS-GPC-8 (SEQ ID NOs. 41 and 42, respectively), MS-GPC-10 (SEQ ID NOs. 43 and 44, respectively), MS-GPC-8-1 (SEQ ID NOs. 41 and 28, respectively), MS-GPC-8-6 (SEQ ID NOs. 41 and 46, respectively), MS-GPC-8-9 (SEQ ID NOs. 41 and 31, respectively), MS-GPC-8-10 (SEQ ID NOs. 41 and 48, respectively), MS-GPC-8-17 (SEQ ID NOs. 41 and 50, respectively), MS-GPC-8-18 (SEQ ID NOs. 41



and 32, respectively), MS-GPC-8-27 (SEQ ID NOs. 41 and 52, respectively), MS-GPC-8-6-2 (SEQ ID NOs. 41 and 45, respectively), MS-GPC-8-6-19 (SEQ ID NOs. 41 and 47, respectively), MS-GPC-8-6-27 (SEQ ID NOs. 41 and 49, respectively), MS-GPC-8-6-45 (SEQ ID NOs. 41 and 51, respectively), MS-GPC-8-6-13 (SEQ ID NOs. 41 and 54, respectively), MS-GPC-8-6-47 (SEQ ID NOs. 41 and 53, respectively), MS-GPC-8-10-57 (SEQ ID NOs. 41 and 56, respectively), MS-GPC-8-27-7 (SEQ ID NOs. 41 and 55, respectively), MS-GPC-8-27-10 (SEQ ID NOs. 41 and 57, respectively) and MS-GPC-8-27-41 (SEQ ID NOs. 41 and 58, respectively).

82. **(Previously Presented; Allowed)** A composition including a polypeptide comprising at least one antibody-based antigen-binding domain with a binding specificity for a human HLA-DR antigen with a  $K_d$  of 1  $\mu$ M or less, wherein treating cells expressing said antigen with said polypeptide causes or leads to suppression of an immune response, wherein said antigen-binding domain includes a combination of HuCAL VH2 and HuCAL V $\lambda$ 1, wherein the VH CDR3 sequence is taken from the consensus CDR3 sequence  
XXXXRGXFDX (SEQ ID NO: 1)

wherein each X independently represents any amino acid residue; and/or

wherein the VL CDR3 sequence is taken from the consensus CDR3 sequence

QSYDXXXX (SEQ ID NO: 2)

wherein each X independently represents any amino acid residue.

83. **(Previously Presented; Allowed)** The composition of claim 82, wherein the VH CDR3 sequence of said antigen-binding domain is SPRYRGAFDY (SEQ ID NO: 3) and/or the VL CDR3 sequence of said antigen-binding domain is QSYDLIRH (SEQ ID NO: 4) or QSYDMNVH (SEQ ID NO: 5).

84. **(Canceled)**

85. **(Canceled)**

86. **(Currently Amended)** A composition including a polypeptide comprising at least one antibody-based antigen-binding domain with a binding specificity for a human HLA-DR antigen with a  $K_d$  of 1  $\mu$ M or less, wherein treating cells expressing said antigen with said polypeptide causes or leads to suppression of an immune response, wherein said antigen-binding domain includes a [[VL]] combination of HuCAL VH2 and HuCAL V $\lambda$ 1, wherein the V $\lambda$ 1 CDR1 sequence is represented in the general formula  
SGSXXNIGXNYVX (SEQ ID NO: 6)  
wherein each X independently represents any amino acid residue.
87. **(Previously Presented; Allowed)** The composition of claim 86, wherein the CDR1 sequence is SGSESNIGNNYVQ (SEQ ID NO: 7).
- 88-91. **(Canceled)**
92. **(Currently Amended)** The composition of any of claims 67 or 81-83, 86 and 87, formulated in a pharmaceutically acceptable carrier and/or diluent.
93. **(Original)** A pharmaceutical preparation comprising the composition of claim 75 in an amount sufficient to suppress an immune response in an animal.
94. **(Original)** A pharmaceutical preparation comprising the composition of claim 76 in an amount sufficient to inhibit IL-2 secretion in an animal.
95. **(Original)** A pharmaceutical preparation comprising the composition of claim 77 in an amount sufficient to inhibit T cell proliferation in an animal.
- 96-116. **(Canceled)**
117. **(Previously Presented; Allowed)** The composition of claim 24, wherein said antigen-binding domain further comprises a VL CDR1 sequence represented in the general formula  
SGSXXNIGXNYVX (SEQ ID NO: 6)  
wherein each X independently represents any amino acid residue.
118. **(Previously Presented; Allowed)** The composition of claim 117, wherein the VL CDR1 sequence is SGSESNIGNNYVQ (SEQ ID NO: 7).

119. **(Canceled)**
120. **(Currently Amended)** The composition of any of claims 22-25, 28, and 29, wherein said antigen-binding domain binds to human HLA-DR with a  $K_d$  of 1  $\mu$ M or less.
121. **(Currently Amended)** The composition of any of claims 22-25, 28, and 29, wherein said antigen-binding domain binds to the  $\alpha$ -chain of HLA-DR.
122. **(Currently Amended)** The composition of any of claims 22-25, 28, and 29, wherein said multivalent polypeptide has an  $EC_{50}$  of 100 nM or less for killing activated lymphoid cells.
123. **(Currently Amended)** The composition of any of claims 67 and 81-83, 86 and 87, wherein said antigen-binding domain binds to the  $\alpha$ -chain of HLA-DR.
124. **(Previously Presented; Allowed)** The composition of claim 82, wherein said antigen-binding domain further comprises a VL CDR1 sequence represented in the general formula SGSXXNIGXNYVX (SEQ ID NO: 6)  
  
wherein each X independently represents any amino acid residue.
125. **(Previously Presented; Allowed)** The composition of claim 124, wherein the VL CDR1 sequence is SGSESNIGNNYVQ (SEQ ID NO: 7).
126. **(Previously Presented; Allowed)** A human IgG antibody generated by cloning into an immunoglobulin expression system an antigen-binding domain of human composition with binding specificity for human HLA-DR antigen, wherein:
- (a) treating cells expressing said antigen with said IgG causes or leads to killing of said cells; and
  - (b) said antigen-binding domain includes a combination of a VH and a VL domain, wherein said combination is found in one of the clones selected from the group consisting of: MS-GPC-8-6-13 (SEQ ID NOs. 41 and 54, respectively), MS-GPC-8-10-57 (SEQ ID NOs. 41 and 56, respectively) and MS-GPC-8-27-41 (SEQ ID NOs. 41 and 58, respectively).

127. **(Previously Presented; Allowed)** The human IgG antibody of claim 126, wherein the IgG antibody is an IgG<sub>4</sub> antibody.
128. **(Previously Presented; Allowed)** A human IgG antibody generated by cloning into an immunoglobulin expression system an antigen-binding domain of human composition with a binding specificity for human HLA-DR antigen, wherein:
- (a) treating cells expressing HLA-DR with said IgG causes or leads to suppression of an immune response; and,
  - (b) said antigen-binding domain includes a combination of a VH and a VL domain, wherein said combination is found in one of the clones selected from the group consisting of: MS-GPC-8-6-13 (SEQ ID NOs. 41 and 54, respectively), MS-GPC-8-10-57 (SEQ ID NOs. 41 and 56, respectively) and MS-GPC-8-27-41 (SEQ ID NOs. 41 and 58, respectively).
129. **(Previously Presented; Allowed)** The human IgG antibody of claim 128, wherein the IgG antibody is an IgG<sub>4</sub> antibody.